File

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KARLHEINZ HILL, MANFRED WEUTHEN and HANS-PETER KOEHLER

Appeal No. 95-1951
Application 07/835,447[1]

ON BRIEF

Before KIMLIN, JOHN D. SMITH, and PAK, Administrative Patent Judges.

JOHN D. SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-20.

[1] Application for patent filed February 24, 1992.

Claim 1 is representative and is reproduced below:

1. In a process for the manufacture of alkyl glycosides of the formula $RO(G)_n$, where G is a glycose unit, n is a number of from 1 to 10 and R is an aliphatic residue having 1-30 carbon atoms, by reaction of an aliphatic alcohol having from 1 to 30 carbon atoms with at least one member selected from the group consisting of reducing monosaccharide, oligosaccharides hydrolyzable to reducing monosaccharides and polysaccharides hydrolyzable to reducing monosaccharides in the presence of an acid catalyst the improvement which comprises: introducing sulfosuccinic acid into the process as the catalyst.

The references of record relied upon by the examiner are:

Letton	4,713,447	Dec. 15, 1987
McCurry et al. (McCurry)	5,003,057	Mar. 26, 1991
European Patent (Davis)	132,043	Jan. 23, 1985

The appealed claims stand rejected under 35 U.S.C. ¶ 103 as unpatentable over McCurry in view of Letton and Davis.

We reverse.

The subject matter on appeal is directed to a process for the manufacture of alkyl glycosides through the acid catalyzed reaction of an aliphatic alcohol with either reducing

monosaccharides, oligosaccharides hydrolyzable to reducing monosaccharides, or polysaccharides hydrolyzable to reducing monosaccharides. Appellants' invention involves an improvement to the prior art process for forming alkyl glycosides by the above reaction which is realized through the use of sulfosuccinic acid as the catalyst for the reaction.

With regard to the obviousness issues raised in this appeal, we observe that the appealed claims are in Jepson format (Ex parte Jepson, 1917 C.D. 62, 243 O.G. 526). Thus the subject matter recited in combination in the preamble of the appealed claims (i.e., the step of reacting an aliphatic alcohol with at least one monosaccharide member leading up to the claimed language "the improvement") is impliedly admitted to be old in the art. In re Aldrich, 398 F.2d 855, 857, 158 USPQ 311, 312 (CCPA 1968); In re Ehrreich, 590 F.2d 902, 909, 200 USPQ 504, 510, (CCPA 1979). Indeed, the relied upon references show the claimed reaction catalyzed with mineral acids as well as materials such as p-toluene sulfonic acid.

Thus the dispositive issue raised by the 35 U.S.C. ¶ 103 rejection is whether or not it would have been obvious to a person of ordinary skill in the art to have utilized the claimed sulfosuccinic acid catalyst in a process for the manufacture of alkyl glycosides. With respect to this basic issue on appeal it is the examiner's view that the use of the sulfosuccinic acid catalyst is suggested by the prior art, in particular, the McCurry patent which discloses the use of hydrophobic dialkyl esters of sulfosuccinic acid as acid catalysts for a reaction as claimed. Basically, it is the examiner's view that it would have been obvious to utilize sulfosuccinic acid in lieu of the dialkyl esters of sulfosuccinic acid as disclosed in McCurry because, according to the examiner, sulfosuccinic acid is a well known catalyst. See page 2 of the Supplemental Examiner's Answer.

Although on its face the examiner's position seems to have some merit, we agree with the appellants that the relied upon references fail to establish a prima facie case of obviousness for the claimed invention.

As stated by the court in In re Freed, 425 F.2d 785, 787, 165 USPQ 570, 571 (CCPA 1970), "a determination of obviousness must be based on facts and not on unsupported generalities". Moreover, the examiner bears the initial burden of supplying the requisite factual basis. In re Warner, 379 F.2d 1011, 1016, 154 USPQ 173, 177 (CCPA 1967). Thus we emphasize, as appellants did, that the examiner's statement that sulfosuccinic acid is a well known catalyst has no factual basis. Indeed the examiner has failed to cite any reference which discloses sulfosuccinic acid as a useful catalyst for any process, much less for a process as claimed herein.

The examiner is correct in stating that McCurry shows the use of sulfosuccinic acid compounds, i.e. long chain dialkyl esters of sulfosuccinic acids, as catalyst for preparing alkyl glycosides. However, as emphasized throughout the disclosure of McCurry, it is a hydrophobic acid catalyst, not a hydrophilic material such as sulfosuccinic acid, that is required to effect process advantages such as increased productivity, decreased foaming, and elimination of carbonization of the product mixture

during distillation or evaporation of excess alcohol reactant. See, for example, McCurry at column 2, lines 11-21 and column 3, lines 4-20. McCurry does indicate that the acid catalyst used in the disclosed reaction may contain minimal amounts of hydrophilic acids. However those acids are preferably removed or rendered non-acidic prior to use as a catalyst. See McCurry at column 4, lines 54-62. As noted by appellant, the claimed sulfosuccinic acid catalyst is hydrophilic and water soluble. Indeed, appellants preferably introduce the sulfosuccinic acid in the form of an aqueous solution. Thus, we agree with appellants that McCurry's disclosure regarding the use of the hydrophobic dialkyl esters of sulfosuccinic acid as acid catalysts for the reaction claimed would not have led one of ordinary skill in the art to the use of a hydrophilic water soluble form of this material. Thus we necessarily disagree with the examiner's contention that the organic-sulfonic acid compounds disclosed in McCurry "are within the scope of the sulfosuccinic acid used in the process of the instant claims." See the Supplemental Examiner's Answer at page 1.

Since we find that the examiner has failed to establish a prima facie case of obviousness for the claimed subject matter on appeal we find it unnecessary to address the evidence of nonobviousness relied upon by appellants in the form of specification data further amplified by the Rule 132 declaration of Hill. The examiner's rejection of the appealed claims under 35 U.S.C. ¶ 103 is reversed.

REVERSED

EDWARD C. KIMLIN)
Administrative Patent Judge)
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JOHN D. SMITH) BOARD OF PATENT
Administrative Patent Judge) APPEALS AND
) INTERFERENCES
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CHUNG K. PAK)
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